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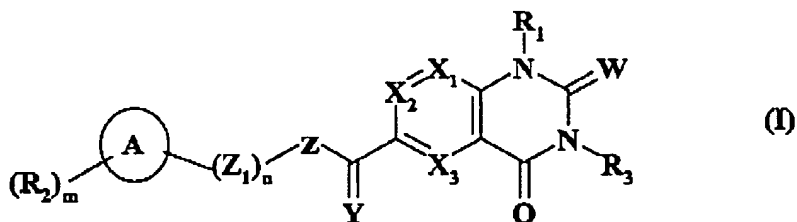
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AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

Listing of claims:

Claim 1 (Previously presented). A compound selected from those of formula (I):



in which:

R_1 represents hydrogen;

W represents an oxygen atom, a sulphur atom, or a group $=N-R'$, in which R' represents (C_1-C_6) alkyl, hydroxyl, or cyano,

X_1 and X_3 represent, independently of each other, a group $-C-R_6$ in which R_6 represents a group selected from hydrogen, (C_1-C_6) alkyl, amino, mono (C_1-C_6) alkylamino, di (C_1-C_6) alkylamino, hydroxyl, (C_1-C_6) alkoxy, and halogen;

X_2 is nitrogen;

Y represents a group selected from oxygen atom, sulphur atom, $-NH$, and $-N(C_1-C_6)$ alkyl,

Z represents:

- an oxygen atom, a sulphur atom,

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- or a group $-NR_7$ in which R_7 represents a group selected from hydrogen, (C_1-C_6) alkyl, aryl (C_1-C_6) alkyl, cycloalkyl, aryl, and heteroaryl, and
- when Y is an oxygen atom, a sulphur atom, or a group $-N(C_1-C_6)$ alkyl, Z optionally represents a carbon atom which is unsubstituted or substituted with a (C_1-C_6) alkyl, an aryl, an aryl (C_1-C_6) alkyl, an aromatic or non-aromatic heterocycle or a cycloalkyl,

n is an integer from 1 to 8 inclusive,

Z_1 represents $-CR_8R_9$ wherein R_8 and R_9 , independently of each other, represent a group selected from hydrogen, (C_1-C_6) alkyl, halo (C_1-C_6) alkyl, halogen, amino, OR_4 , SR_4 or $C(=O)OR_4$ in which R_4 represents a hydrogen or (C_1-C_6) alkyl, and

- when n is greater than or equal to 2, the hydrocarbon chain Z_1 optionally contains one or more multiple bonds,
- and/or one of the carbon atoms in the hydrocarbon chain Z_1 may be replaced with an oxygen atom, a sulphur atom which is unsubstituted or substituted with one or two oxygen atoms, or a nitrogen atom which is unsubstituted or substituted with a (C_1-C_6) alkyl,
- and when one of the carbon atoms in the hydrocarbon chain Z_1 is replaced with a sulphur atom which is unsubstituted or substituted with one or two oxygen atoms, then the group $-C(=Y)-Z-$ optionally may be absent in the general formula (I),

- A represents an aromatic or non-aromatic, 5- or 6-membered monocycle comprising from 0 to 4 heteroatoms selected from nitrogen, oxygen and sulphur,

m is an integer from 0 to 7 inclusive,

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the group(s) R_2 , which may be identical or different, is (are) selected from (C_1-C_6) alkyl, halogen, $-CN$, NO_2 , SCF_3 , $-CF_3$, $-OCF_3$, $-NR_{10}R_{11}$, $-OR_{10}$, $-SR_{10}$, SOR_{10} , $-SO_2R_{10}$, $-(CH_2)_kSO_2NR_{10}R_{11}$, $-X_5(CH_2)_kC(=O)OR_{10}$, $-(CH_2)_kC(=O)OR_{10}$, $-X_5(CH_2)_kC(=O)NR_{10}R_{11}$, $-(CH_2)_kC(=O)NR_{10}R_{11}$, and $-X_4-R_{12}$ in which:

- X_5 represents a group selected from oxygen, sulphur optionally substituted by one or two oxygen atoms, and nitrogen substituted by hydrogen or (C_1-C_6) alkyl,

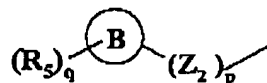
- k is an integer from 0 to 3 inclusive,

- R_{10} and R_{11} , which may be identical or different, are selected from hydrogen and (C_1-C_6) alkyl,

- X_4 represents a group selected from single bond, $-CH_2-$, oxygen atom, sulphur atom optionally substituted by one or two oxygen atoms, and nitrogen atom substituted by hydrogen atom or (C_1-C_6) alkyl group,

- R_{12} represents an aromatic or non-aromatic, heterocyclic or non-heterocyclic, 5- or 6-membered ring which is unsubstituted or substituted with one or more groups, which may be identical or different, selected from (C_1-C_6) alkyl, halogen, hydroxyl and amino, and when the ring is heterocyclic, it comprises from 1 to 4 heteroatoms selected from nitrogen, oxygen and sulphur;

- R_3 represents the group of formula :



✓ in which p is an integer from 0 to 8 inclusive,

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- ✓ Z_2 represents $-CR_{13}R_{14}$ wherein R_{13} and R_{14} , independently of each other, represent a group selected from hydrogen, (C_1-C_6) alkyl, phenyl, halo (C_1-C_6) alkyl, halogen, amino, OR_4 , SR_4 and $-C(=O)OR_4$ in which R_4 represents hydrogen or (C_1-C_6) alkyl, and
- when p is greater than or equal to 2, the hydrocarbon chain Z_2 optionally contains one or more multiple bonds,
 - and/or one of the carbon atoms in the hydrocarbon chain Z_2 may be replaced with an oxygen atom, a sulphur atom which is unsubstituted or substituted with one or two oxygen atoms, a nitrogen atom which is unsubstituted or substituted with a (C_1-C_6) alkyl, or a carbonyl group,
- ✓ B represents a group selected from:
- an aromatic or non-aromatic 5- or 6-membered monocycle comprising from 0 to 4 heteroatoms selected from nitrogen, oxygen and sulphur, and
 - a bicycle, composed of two aromatic or non-aromatic, 5- or 6-membered rings, which may be identical or different, comprising from 0 to 4 heteroatoms selected from nitrogen, oxygen and sulphur,
- ✓ q is an integer from 0 to 7 inclusive,
- ✓ the group(s) R_5 , which may be identical or different, is (are) selected from (C_1-C_6) alkyl, halogen, CN, NO_2 , CF_3 , OCF_3 , $-(CH_2)_kNR_{15}R_{16}$, $-N(R_{15})C(=O)R_{16}$, $-N(R_{15})C(=O)OR_{16}$, $-N(R_{15})SO_2R_{16}$, $-N(SO_2R_{15})_2$, $-OR_{15}$, $-S(O)_{k1}R_{15}$, $-SO_2-N(R_{15})-(CH_2)_{k2}-NR_{16}R_{17}$, $-(CH_2)_kSO_2NR_{15}R_{16}$, $-X_7(CH_2)_kC(=O)OR_{15}$, $-(CH_2)_kC(=O)OR_{15}$, $-C(=O)O-(CH_2)_{k2}-NR_{15}R_{16}$, $-C(=O)O-(CH_2)_{k2}-C(=O)OR_{18}$, $-X_7(CH_2)_kC(=O)NR_{15}R_{16}$, $-(CH_2)_kC(=O)NR_{15}R_{16}$, $-R_{19}-C(=O)OR_{15}$, $-X_6-R_{20}$, and $-C(=O)-R_{21}-NR_{15}R_{16}$ in which :

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- X_7 represents a group selected from oxygen atom, sulphur atom optionally substituted by one or two oxygen atoms, and nitrogen atom substituted by a hydrogen atom or a (C₁-C₆)alkyl group,
- k is an integer from 0 to 3 inclusive,
- k_1 is an integer from 0 to 2 inclusive,
- k_2 is an integer from 1 to 4 inclusive,
- R_{15} , R_{16} and R_{17} , which may be identical or different, are selected from hydrogen and (C₁-C₆)alkyl,
- R_{18} represents a group selected from (C₁-C₆)alkyl, $-R_{21}-NR_{15}R_{16}$, $-R_{21}-NR_{15}-C(=O)-R_{21}-NR_{16}R_{17}$, and $-C(=O)O-R_{21}-NR_{15}R_{16}$ in which R_{21} represents a linear or branched (C₁-C₆)alkylene group, and R_{15} , R_{16} and R_{17} are as defined hereinbefore,
- R_{19} represents a (C₃-C₆)cycloalkyl group,
- X_6 represents a group selected from single bond, $-CH_2-$, oxygen atom, sulphur atom optionally substituted by one or two oxygen atoms, and nitrogen atom substituted by hydrogen atom or (C₁-C₆)alkyl group,
- R_{20} represents an aromatic or non-aromatic, heterocyclic or non-heterocyclic, 5- or 6-membered ring, which is unsubstituted or substituted with one or more groups, which may be identical or different, selected from (C₁-C₆)alkyl, halogen, hydroxyl, oxo, cyano, tetrazole, amino, and $-C(=O)OR_4$ wherein R_4 represents hydrogen or (C₁-C₆)alkyl, and, when the ring is heterocyclic, it comprises from 1 to 4 heteroatoms selected from

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nitrogen, oxygen and sulphur, optionally, the racemic forms thereof, isomers thereof, N-oxides thereof, and the pharmaceutically acceptable salts thereof.

Claim 2 (canceled).

Claim 3 (currently amended). A compound of formula (I) according to Claim 1 ~~characterized in that:~~ wherein:
n is an integer from 1 to 6 inclusive,

Z₁ represents -CR₈R₉, wherein R₈ represents a hydrogen atom and R₉ represents a hydrogen atom or a methyl group, and

- when n is greater than or equal to 2, the hydrocarbon chain Z₁ optionally contains a double bond,
- or, one of the carbon atoms in the hydrocarbon chain Z₁ may be replaced with an oxygen atom, or a sulphur atom which is unsubstituted or substituted with one or two oxygens,

A represents a group selected from phenyl, pyridyl, thienyl, imidazolyl, furyl, and piperidyl,

m is an integer from 0 to 7 inclusive,

the group(s) R₂, which may be identical or different, is (are) selected from (C₁-C₆)alkyl, halogen, -CN, -CF₃, -OCF₃, -NR₁₀R₁₁, -OR₁₀, -SR₁₀, -SO₂R₁₀, -(CH₂)_kSO₂NR₁₀R₁₁, -X₅(CH₂)_kC(=O)OR₁₀, -(CH₂)_kC(=O)OR₁₀, -X₅(CH₂)_kC(=O)NR₁₀R₁₁, -(CH₂)_kC(=O)NR₁₀R₁₁, and -X₄-R₁₂ in which:

- ✓ X₅ represents O, S or NH,
- ✓ k is an integer from 0 to 3 inclusive,

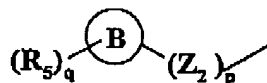
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- ✓ R_{10} and R_{11} , identical or different, are selected from hydrogen and (C_1-C_6) alkyl,
 - ✓ X_4 represents $-CH_2-$, or an oxygen atom,
 - ✓ R_{12} represents a phenyl group which is unsubstituted or substituted with one or more groups, which may be identical or different, selected from (C_1-C_6) alkyl, halogen, hydroxyl and amino,
- optionally, the racemic forms thereof, isomers thereof, N-oxides thereof, and the pharmaceutically acceptable salts thereof.

Claim 4 (currently amended). A compound of formula (I) according to Claim 1 ~~characterized in that:~~ wherein:
 R_3 represents the group of formula:



- in which p is an integer from 0 to 3 inclusive,
- Z_2 represents $-CR_{13}R_{14}$ wherein R_{13} and R_{14} , independently of each other, represent a group selected from hydrogen, methyl, or phenyl, and
 - when p is greater than or equal to 2, the hydrocarbon chain Z_2 optionally contains one double bond,
 - or one of the carbon atoms in the hydrocarbon chain Z_2 may be replaced with an oxygen atom, a sulphur atom which is unsubstituted or substituted with one or two oxygen atoms, a nitrogen atom which is unsubstituted or substituted with a (C_1-C_6) alkyl, or a carbonyl group,
- B represents a group selected from phenyl, pyridyl, thienyl, imidazolyl, furyl, 1,3-benzodioxolyl, benzodioxinyl, benzothienyl, benzofuryl, 2,1,3-benzothiadiazolyl, benzofurazanyl, naphthyl, and indolyl,

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- q is an integer from 0 to 3 inclusive,
- the group(s) R_5 , which may be identical or different, is (are) selected from (C_1-C_6) alkyl, halogen, CN, NO_2 , CF_3 , OCF_3 , $-(CH_2)_kNR_{15}R_{16}$, $-N(R_{15})C(=O)R_{16}$, $-(R_{15})C(=O)OR_{16}$, $-N(R_{15})SO_2R_{16}$, $-N(SO_2R_{15})_2$, $-OR_{15}$, $-S(O)_{k1}R_{15}$, $-SO_2-N(R_{15})-(CH_2)_{k2}-NR_{16}R_{17}$, $-(CH_2)_kSO_2NR_{15}R_{16}$, $-X_7(CH_2)_kC(=O)OR_{15}$, $-(CH_2)_kC(=O)OR_{15}$, $-C(=O)O-(CH_2)_{k2}-NR_{15}R_{16}$, $-X_7(CH_2)_kC(=O)NR_{15}R_{16}$, and $-(CH_2)_kC(=O)NR_{15}R_{16}$ in which :
 - X_7 is S, O or NH,
 - k is an integer from 0 to 3 inclusive,
 - k_1 is an integer from 0 to 2 inclusive,
 - k_2 is an integer from 1 to 4 inclusive,
 - R_{15} , R_{16} and R_{17} , which may be identical or different, are selected from hydrogen and (C_1-C_6) alkyl,

optionally, the racemic forms thereof, isomers thereof, N-oxides thereof, and the pharmaceutically acceptable salts thereof.

Claims 5 to 8 (canceled).

Claim 9 (currently amended). A compound of formula (I) according to Claim 1 ~~characterized in that~~ wherein:

W represents an oxygen atom,

Y represents an oxygen atom,

Z represents a NH group,

Z_1 represents a methylene group,

and n is equal to one,

optionally, the racemic forms thereof, isomers thereof, N-oxides thereof, and the pharmaceutically acceptable salts thereof.

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Claims 10 and 11 (canceled).

Claim 12 (currently amended). A compound of formula (I) according to Claim 1 ~~characterized in that~~ wherein:

X₁ and X₃ represent each a -CH group,

and

optionally, the racemic forms thereof, isomers thereof, N-oxides thereof, and the pharmaceutically acceptable salts thereof.

Claim 13 (currently amended). A compound of formula (I) according to Claim 1 ~~characterized in that~~ wherein:

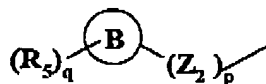
A represents a group selected from phenyl, and pyridyl,

m is equal to 0 or 1,

and R₂ represents a group selected from (C₁-C₆)alkoxy, hydroxy, halogen, and (C₁-C₆)thioalkoxy,

optionally, the racemic forms thereof, isomers thereof, N-oxides thereof, and the pharmaceutically acceptable salts thereof.

Claim 14 (currently amended). A compound of formula (I) according to Claim 1 ~~characterized in that~~ wherein R₃ represents a group of formula :



in which:

p is equal to 1,

Z₂ represents a methylene group,

B represents a group selected from phenyl, pyridyl, 1,3-benzodioxolyl, and benzofurazanyl,

q is an integer from 0 to 2 inclusive,

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and R_5 represent(s) a group selected from halogen, CN, $-(CH_2)_kNR_{15}R_{16}$, $-S(O)_kR_{15}$, $-(CH_2)_kSO_2NR_{15}R_{16}$, $-(CH_2)_kC(=O)OR_{15}$, $-(CH_2)_kC(=O)NR_{15}R_{16}$, and $-X_6-R_{20}$, in which :

- k is an integer from 0 to 1 inclusive,
- $k1$ is an integer from 0 to 2 inclusive,
- R_{15} and R_{16} , which may be identical or different, are selected from hydrogen and (C_1-C_6) alkyl,
- X_6 represents a bond,
- $-R_{20}$ represents a 5-membered heterocyclic ring comprising from 3 to 4 heteroatoms selected from oxygen and nitrogen and optionally substituted with a methyl group or an oxo group,

optionally, the racemic forms thereof, isomers thereof, N-oxides thereof, and the pharmaceutically acceptable salts thereof.

Claim 15 (previously presented). A compound of formula (I) according to Claim 1, which is:

- Methyl 4-[6-(4-Methoxy-benzylcarbamoyl)-1-methyl-2,4-dioxo-1,4-dihydro-2H-pyrido[3,4-*d*]pyrimidin-3-ylmethyl]-benzoate,
- 4-[6-(4-Methoxy-benzylcarbamoyl)-1-methyl-2,4-dioxo-1,4-dihydro-2H-pyrido[3,4-*d*]pyrimidin-3-ylmethyl]-benzoic acid,
- 4-[6-(3-Methoxy-benzylcarbamoyl)-1-methyl-2,4-dioxo-1,4-dihydro-2H-pyrido[3,4-*d*]pyrimidin-3-ylmethyl]-benzoic acid, and
- 3-(4-Cyano-benzyl)-1-methyl-2,4-dioxo-1,2,3,4-tetrahydro-pyrido[3,4-*d*]pyrimidine-6-carboxylic acid 4-methoxy-benzylamide.

Claims 16 to 28 (canceled).

Claim 29 (currently amended). A pharmaceutical composition comprising a compound according to any one of Claims 1, 3, 4, 9, or ~~11~~ 12-15 inclusive and a pharmaceutically acceptable excipient.

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Claims 30-39 (canceled).